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Social Metacognition
Thinking About Thinking in Social Psychology

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INTRODUCTION

Metacognition is thinking about thinking. Specifically, metacognition refers to a person's thoughts about his or her own thoughts or thought processes. One useful way to think about metacognition is to distinguish between primary and secondary cognition. Primary thoughts are those that occur at a direct level of cognition and involve our initial associations of an object with some attribute, such as "that car is beige" or "I like tennis." These thoughts are often called "object level" thoughts (Nelson & Narens, 1990).

In addition to primary thoughts, people can also generate other thoughts that occur at a second, metacognitive level that involve reflections on the first-level thoughts (e.g., "Is that car really beige or is it tan?" "I am not sure how much I like that car."). As noted recently by Petty, Briñol, Tormala, and Wegener (2007), metacognition has assumed a prominent role in social judgment because secondary thoughts can magnify, attenuate, or even reverse the impact of first-order cognition. Metacognitive thoughts can also produce changes in thought, feeling, and behavior and thus are critical for a complete understanding of human behavior (e.g., Metcalfe & Finn, 2008).

The present volume focuses on topics within social psychology, where metacognition has been examined in some depth. The main goal of the volume is to present several of the most important and advanced research areas in social psychology where the role of metacognition has been studied. This book is organized into four substantive content areas: attitudes and decision making, self and identity, experiential, and interpersonal. Before addressing these four areas and

the chapters contained within each, we begin by discussing some general issues of interest regarding social metacognition.

Dimensions of Metacognitive Judgment

Metacognition refers to a wide range of a person's mental activity. As such, there are many dimensions on which metacognitive thoughts can vary. For example, Petty and colleagues (2007) suggested that people can think about their thoughts in terms of a variety of dimensions such as valence, number, target, origin, evaluation, and confidence. These dimensions are useful to classify the judgments people make about their thoughts. For example, Wagner, Briñol, and Petty (Chapter 3, this volume) describe how these dimensions can serve to organize thoughts in response to persuasion. There are other ways in which metacognitions can vary, and we briefly mention some of the most frequently used dimensions in this section.

Dunlosky and Metcalfe (2009) propose that metacognition can be divided into three primary facets: metacognitive knowledge, monitoring, and control. Metacognitive knowledge refers to people's beliefs about thinking (e.g., "An easy way to remember names is to associate a person's name with a salient physical feature."). Metacognitive monitoring refers to evaluating one's own thoughts with respect to some thought standard (e.g., "My mood might be leading me to be overly positive about this candidate's policies."). Metacognitive control refers to the regulation of one's own thinking (e.g., "Because my mood might be biasing my thinking, I might want to be less positive in my judgment." See Wegener, Silva, Petty, & Garcia-Marques, Chapter 5, this volume). Some of the chapters in this book refer to this classification of metacognitions (e.g., Achtziger, Martiny, Oettingen, Gollwitzer, Chapter 7, this volume).

Metacognitive thoughts can also vary in the referent thought. This might seem somewhat obvious because the chapters in this volume deal with a range of different primary thoughts (e.g., about one's group members, attitudes, stereotypes, etc.). However, these referent thoughts can vary in systematic and interesting ways. For example, a person could think about a specific primary thought (e.g., "I like the proposed tax policy.") or about a specific thought process (e.g., the reasoning process used to form the judgment of the tax policy). In these examples, the primary thoughts are relatively concrete in nature (in this case, a specific judgment or the thought processes that produced it), but it is worth noting that people can also have metacognitive thoughts about their thoughts or thought processes in general. Metacognitive knowledge about more general thinking often constitutes a person's *lay theories* about his or her own thinking (e.g., moods can affect thinking). In addition, it is possible that a metacognitive thought could, itself, be further reflected upon (e.g., "I do not want my reasoning processes to be affected by my mood."). Several chapters in this volume address issues of tertiary metacognition (e.g., DeMarree & Morrison, Chapter 6; Wagner et al., Chapter 3; Wells, Chapter 17—all this volume; see also Nelson & Narens, 1990).

One other way in which metacognitive thoughts can vary is the degree to which metacognitions are reflective versus reflexive. Some metacognitions are relatively effortfully and intentionally generated, such as when a person is engaged in very careful decision making (e.g., a person will have a lot of thoughts about the issue and might carefully and consciously consider the validity of each thought; Petty, Briñol, & Tormala, 2002). Other metacognitions are reflexive, and at the extremely low end of this continuum are metacognitive experiences and inferences such as the ease with which a thought is generated or retrieved (Schwarz et al., 1991). Furthermore, the impact of metacognitive thoughts (i.e., the impact they exert on final judgment or behavior) can also be relatively reflective versus reflexive, and this is conceptually orthogonal to the degree to which the metacognition itself was thoughtfully generated. This distinction is addressed in several chapters of this volume (e.g., Briñol, Petty, & Wagner, Chapter 12; Son, Kornell, Finn, & Cantlon, Chapter 9; Wegener, Silva, Petty, & Garcia-Marques, Chapter 5—all this volume).

It should be clear at this point that metacognitive thoughts vary in a number of interesting dimensions, including also the degree to which they are accurate or grounded in reality (e.g., Dunning, Chapter 4; Schryer & Ross, Chapter 8—both in this volume). A central premise of this book is that this variety of metacognitive processes can provide profound insight into human behavior and thought. Before describing the specific contributions in this volume, we next address several definitional issues regarding social metacognition and then briefly describe the historical antecedents of social metacognition.

Thinking About Our Own Thoughts Versus Thinking About the Thoughts of Others

Although there are multiple definitions of metacognition (see Dunlosky & Metcalfe, 2009), we understand metacognition as thinking about one's own thinking. As noted, this definition involves the distinction between primary and secondary cognition. The chapters in this volume refer to this general distinction. However, some authors have conceived metacognition more broadly as people's thoughts about their own and *others'* mental states (e.g., Jost, Kruglanski, & Nelson, 1998; Wright 2002). According to this expansionist approach, any thought about a thought (one's own or those of another person) would qualify as metacognition.

Although this is an interesting perspective (e.g., related to the theory of mind) and a substantive area in its own right, we define metacognition as thinking about one's own thinking. One of the main reasons for focusing the definition on one's own (vs. others') thoughts is that metacognitive processes that lead to changes in the impact of a primary thought (e.g., relying more or less on that thought) are more likely to occur if the primary thought is in one's own head. For example, the degree of confidence a perceiver has in a target person's thought (e.g., "I'm *sure* that Bart likes Butterfinger candy.") cannot directly affect the extent to which the target's behavior follows from that thought. However, it is worth noting that what a person thinks about others' thoughts can influence how the person thinks about his or her own thoughts and own behavior. For example, Rucker, Petty, and Briñol (2008) found that the confidence people have in their own evaluations of products (a metacognitive dimension) is affected by whether they think that other consumers have thought in a biased or an objective manner about the same products.

The distinction between thinking about one's own rather than others' thoughts is an important one that has generated a growing debate spanning several intellectual disciplines. The debate revolves around the extent to which thinking about one's own mind and thinking about another person's mind are really two different, separable phenomena, and whether one develops (both evolutionarily and across the life span) as a result of the other. That is, do we know our own minds because we evolved the ability to think about others' minds, or vice versa (Son et al., Chapter 9, this volume; see also Carruthers, 2009)?

Social Aspects of Social Metacognition

The prefix "social" is used in many ways within social psychology, often with different meanings (e.g., McGuire, 1999, for a review). For example, one can use social to label thoughts that deal with social objects (e.g., perceptions of other people or relationships). Social can also be used to label thoughts that are originated or shared by members of a society, thoughts that are communicated to other people, and thoughts that contribute to maintaining the status quo (e.g., system justification, stereotypes, etc.).

Another interesting usage of social is for imputing an emergent, transcendental quality to thoughts such that they have an existence outside individual heads, as in language structures, institutions, or bureaucracies that transcend the individual. Any given thought does not have to possess all these meanings to be considered social. Thus, because a thought is widely shared does not imply that it is communicable deliberatively. For example, although cultural truisms are accepted by most people in a society, they might not be communicated to others and may operate without even entering awareness (e.g., McGuire & Papageorgis, 1961).

Following these uses of social to refer to primary cognition, one could refer to social metacognition in similar ways. For example, thoughts about a primary cognition of social content would be considered an example of social metacognition. That is, social metacognition can refer to thoughts about social thoughts. Many of the chapters in this volume deal with social metacognition from this point of view because they relate to what people think about their social thoughts (e.g., Yzerbyt & Demoulin, Chapter 13, this volume). For example, attitudes about other people can vary in their metacognitive properties (such as confidence or perceived ambivalence; Visser & Holbrook, Chapter 2, this volume). In this way, social metacognition is no different from metacognition as studied by cognitive and developmental psychologists, except as it provides a broader and richer set of topics to which one can apply metacognitive concepts.

Also as noted for primary cognition, social can be also used to label thoughts that originate from or are shared by members of a specified society or to refer to thoughts that contribute to maintain the current social status quo. From this perspective, thoughts about thoughts that refer to social categories can be considered social metacognition. There are many examples of this use of social metacognition through the chapters of this book. For example, Huntsinger and Clore (Chapter 11) show that positive affect serves as a "go" signal (treated at the level of secondary cognition) that can increase the reliance on stereotypes (treated as primary cognitions). Similarly, Briñol and colleagues describe in Chapter 12 how bodily responses produce confidence (treated as secondary cognitions) that can validate stereotypical thoughts. Furthermore, social metacognition depends on cultural views about how our mind works. For example, many of the theories people have about how their own thoughts are affected by others are based on culturally based naïve theories.

Social can be also used to label secondary thoughts that are shared with or communicable to other people. For example, in the chapter on close relationships, Jacquie Vorauer (Chapter 14) examines the secondary cognitions people have regarding the extent to which their primary thoughts (e.g., about fears of rejection) are being concealed from, detected by, and shared with significant others. Thus, people can think about their thoughts in order to decide whether, how, and why to share them with others. Furthermore, these decisions about sharing thoughts can help (or hurt) groups and organization in their functioning and other dimensions (Thompson & Cohen, Chapter 15). Examples such as this go beyond much of the research on metacognition as studied previously in other domains, providing an illustration of how important it is to consider interpersonal aspects of metacognition.

Finally, we noted that one of the most intriguing uses of social to refer to primary cognition is the idea that social thoughts can include shared social realities (e.g., as in language structures, institutions, or bureaucracies that transcend the individual). One could wonder to what extent it is possible for metacognition to be understood at a similar level of analysis. If shared cognitions can be considered primary thoughts in certain social contexts, then people (and groups) could further think about those shared thoughts.

In addition to translating the common uses of the term "social" from primary cognition to secondary cognition, there are other potential ways in which thinking about thinking can be considered social. For example, metacognitions can be the object or the target of social influence. Obviously, there is ample evidence within social psychology that reveals that primary cognitions (e.g., thoughts, feelings, attitudes, beliefs, intentions, etc.) can be changed by persuasion and social influence. Several chapters in this book reveal that secondary cognitions are also malleable through social influence. The work on persuasion through self-validation (Briñol et al., Chapter 12; Wagner et al., Chapter 3—both in this volume) clearly illustrates that people's assessments of the validity of their thoughts can be modified through changes in the source, message, recipient, and context of persuasion. For example, Petty et al. (2002) gave participants false feedback about the extent to which other people shared similar thoughts to the ones participants listed in response to a persuasive proposal, and they found that this affected persuasion by influencing thought confidence.

Research on attitude confidence (i.e., the extent to which people are sure of the validity of their opinions; see Visser & Holbrook, Chapter 2, this volume) also reveals how metacognitions can change as a function of different forms of social influence (see also Rucker & Tormala, Chapter 16, this volume). Perhaps the clearest illustration of this category comes from this book's final chapter on metacognitive therapy by Adrian Wells: A number of techniques are described to deliberatively induce changes in people's thoughts about their own thoughts.

Are Metacognitive Thoughts Consequential or Merely an Epiphenomenon?

One of the most critical questions that one can ask about metacognition is whether secondary cognitions are influential in guiding behavior or are merely epiphenomenal. That is, to what extent does metacognition plays a role in the organization, functioning, and impact of thought? Of course, one can also question whether *any* thought plays a role in guiding behavior (e.g., Baumeister, Masicampo, & Vohs, 2011; Wegner, 2002) or whether people have introspective access to their thoughts and thought processes in the first place (Wilson, 2002).

True "direct access" forms of introspection have been criticized because understanding one's thoughts likely requires some degree of interpretation from the person (e.g., to translate from the language of thought to something that is verbally expressible). Carruthers (2009) has even taken an extreme position by arguing that people do not know what they think. According to his view, introspection does not exist (i.e., it is a mere illusion) and people confabulate whenever they express their thoughts. Although the degree of interpretation is likely to vary along a continuum (see Petty & Briñol, 2009), there are many cases demonstrating the usefulness of introspective reports for examining primary cognition. For example, the thoughts that people report having in response to a persuasive appeal consistently predict their subsequent judgments and behavior (e.g., Petty et al., 2002; Petty, Ostrom, & Brock, 1981).

Not surprisingly, similar questions about people's access to and the impact of secondary cognitions have also been raised. Fortunately, reports based on introspection of secondary cognition often provide insight into metacognitive processes and are useful in predicting people's judgments and behavior. For example, early work on metacognition in the cognitive psychology literature indicated that people's perceptions that they would be able to recognize an answer from a list of available options predicted their actual recognition (e.g., Hart, 1965). Furthermore, metacognitive processes, such as students' perceptions that they "know" enough information for a test (over and above students' actual knowledge of the material) were found to regulate their behavior (e.g., by discontinuing studying to take a test on the target material; Flavell, Friedrichs, & Hoyt, 1970). Across chapters, this volume offers a variety of cutting-edge illustrations of how powerful and consequential metacognition can be in affecting human judgment and behavior.

Although reports of secondary cognitions are useful in understanding metacognition, we do not mean to imply that it is necessary for people to evaluate their metacognition explicitly in order to observe its effects. For example, research has revealed that thought confidence can be consequential even when researchers do not explicitly measure it (e.g., in studies that manipulate variables known to affect confidence without measuring confidence directly; for a review, see Briñol & Petty, 2009a). In other words, the notion that people might not always be aware of their metacognition does not necessitate that such metacognitions are less impactful or any less metacognitive in nature. Indeed, metacognitions, like primary cognitions, can sometimes stem from factors that are difficult or even impossible to verbalize consciously (just as the basis of the primary cognition cannot be verbalized; see Wagner et al., Chapter 3, this volume). In sum, people are capable of reporting metacognitive judgments, and these reports map onto predictable and important outcomes; however, people do not *need* to reflect consciously on their metacognitions or even be aware of the origins of their metacognitive judgments for them to have an impact (see Briñol & Petty, 2009b, for a discussion).

Historical Antecedents in the Study of Social Metacognition

Metacognition itself became the object of systematic investigation in the late 1960s and early 1970s. As nicely described by Dunlosky and Metcalfe (2009) in their historical review and as illustrated by the preceding examples, the initial work on metacognition is deeply rooted in the study of human memory. Indeed, cognitive psychologists have long been interested in people's perceptions and theories of their own memory. For example, Jacoby proposes that memory does not operate like a "file drawer," but instead is often the product of metacognitive inferences based on cognitive experiences (e.g., Jacoby, Kelley, & Dywan, 1989). One example is the feeling of familiarity, which is often taken to indicate that something is known or remembered (Jacoby, Kelley, Brown, & Jasechko, 1989). In combination with transitory cognitive experiences, judgments of memory are also influenced by people's lay theories of memory, such as people's beliefs about the type of information they are more or less likely to recall (Costermans, Lories, & Ansay, 1992; Strack & Förster, 1998).

Of course, people's lay theories of memory are not always accurate. For example, perceived familiarity can stem from factors that are unrelated to a person's actual familiarity with the information in question (e.g., Reder & Ritter, 1992). Similarly, people's theories of their own memory can sometimes lead them astray. In many cases, people are overconfident about their memory ability, believing that they can or will remember things that they ultimately forget.

In addition to memory, considerable research attention has been devoted to understanding people's judgments of their own knowledge (e.g., Koriat, 1993) and learning (e.g., Dunlosky & Nelson, 1994). Research indicates that although such judgments can be based on the actual presence or absence of information in memory, they are also influenced by additional factors such as the ease with which information comes to mind, regardless of the appropriateness of these factors as cues (e.g., Serra & Metcalfe, 2009). In fact, there is a long history of research in the cognitive domain focusing on the subjective experience of memory or, more specifically, on the feeling of cognitive fluency with which information can be retrieved from memory (e.g., Benjamin & Bjork, 1996; Metcalfe, 2009; Nelson & Narens, 1990).

A relevant area that has served as a bridge between the traditional study of metacognition by cognitive psychologists and social metacognition can be found in the work on eyewitness confidence by social psychologists such as Gary Wells, Michael Leippe, and Donna Eisenstadt. In this context, judgmental confidence (a metacognition expressed by an eyewitness) is a compelling argument to convince police investigators, prosecutors, and juries of the validity of eyewitness testimony (e.g., Wells & Loftus, 1984). It makes intuitive sense to believe

eyewitnesses who are certain of their judgments. However, as it is the case with other judgments, certainty is often overly high and not well calibrated to the accuracy of eyewitness testimony (e.g., Leippe, Wells, & Ostrom, 1978; see also Dunning, Chapter 4, this volume).

There are several possible reasons for overconfidence. For example, people often have the lay belief that they are good at face recognition (e.g., Wells, Olson, & Charman, 2002). Other social psychological processes, such as postdecisional dissonance reduction (lineup identification is an irreversible decision), mood regulation (uncertainty feels bad), and impression-management concerns (confidence is a desirable quality) can further lend insight into eyewitness overconfidence (for a review, see Eisenstadt & Leippe, 2010). Furthermore, eyewitness confidence can be a product of social influence (Wells & Bradfield, 1998; see also Rucker & Tormala, Chapter 16, this volume). In sum, social psychological principles are relevant for understanding both the intrapsychic processes (e.g., dissonance) and the interpersonal processes (e.g., social consensus) that affect metacognitive confidence in this influential domain.

Within social psychology, one of the earliest and most influential demonstrations that people's thoughts about their thoughts can be consequential came from research on what is called the *ease of retrieval* paradigm. In the original study on this topic, Schwarz and colleagues (1991) asked participants to list either six examples of their own assertiveness (which was easy) or twelve examples (which was difficult). Interestingly, people who had to retrieve fewer examples viewed themselves as *more* assertive, despite having fewer examples on which to base this judgment. Schwarz and colleagues reasoned that people considered the ease with which the thoughts could be retrieved from memory and inferred that if retrieval was easy, many more examples were likely to be available. As described by Sanna and Lundberg (Chapter 10, this volume), the experience of ease can operate through a simple metacognitive inference about primary thoughts (e.g., heuristic inferences of availability of primary thoughts) and by processes of secondary appraisals of primary thoughts (i.e., by validating primary thoughts), depending on the circumstances (see also Briñol et al., Chapter 12, this volume).

Another contribution that highlights the importance of metacognition within social psychology comes from the research on attitude strength (Petty & Krosnick, 1995). Strong attitudes are defined as those that are durable (persistent and resistant) and impactful (influencing judgments and behavior). As described in the chapter by Visser and Holbrook (Chapter 2, this volume), metacognitive perceptions related to one's attitudes, including attitude certainty and attitude importance, predict strength outcomes. For example, attitudes held with greater certainty are more resistant to change, stable over time, and more predictive of behavior than attitudes about which there is doubt (see also Rucker & Tormala, Chapter 16, this volume).

Finally, 1998 marked the full-scale arrival of metacognition to social psychology, with the publication of an edited volume on metacognition (Yzerbyt, Lories, & Dardenne, 1998) and a special issue of the *Personality and Social Psychology Review* (*PSPR*) on social metacognition (Mischel, 1998). In their edited book, Yzerbyt and colleagues combined classic topics in metacognition (e.g., feelings of knowing, theories about memory) with work that focused on topics of particular interest for social psychologists, such as research on stereotyping, and work on corrections from unwanted social influences (see, for example, Mussweiler & Neumann, 2000; Wegener & Petty, 1997; Wilson, Gilbert, & Wheatley, 1998).

The special issue of *PSPR* served to introduce the idea of metacognition definitively to many social psychologists. In fact, only 2 years later, another volume edited by social psychologists appeared summarizing the work on metacognition (Bless & Forgas, 2000), particularly as it relates to subjective experiences, such as ease of retrieval (e.g., Skurnik, Schwarz, & Winkielman, 2000). Since then, metacognition has been an important theme within social psychology—one that is constantly present in mainstream social psychology journals, books, and conferences. The present volume summarizes much of the work on social metacognition done in recent decades, providing an up-to-date picture of this area of research.

THE CHAPTERS IN THIS BOOK

After introducing some of the basic concepts related to social metacognition, we now turn our attention more directly to the contents of this book. As noted, we have divided it into four substantive sections: "Attitudes and Decision Making," "Self and Identity," "Experiential Metacognition," and "Interpersonal Metacognition." Each section consists of several chapters, each of which examines a specific set of issues within the larger topic. Although we have referred to the chapters in the previous sections, the next section introduces them around these four core topics and provides a brief overview of the contents of this volume.

Attitudes, Social Judgment, and Decision Making

Research on attitudes and decision making has played a central role in establishing the importance of metacognition in social psychology. The first section of this book highlights several areas of particular importance. In Chapter 2, Visser and Holbrook systematically review research on attitude strength and discuss how metacognitive variables, such as attitude certainty and importance, can predict whether attitudes translate into behavior and thought, resist change, and are stable over time. In their chapter, attitudes are the primary cognitions (e.g., "I like Sara.") for which people have a number of secondary cognitions (e.g., "I am sure of my evaluation of Sara," "My attitude toward Sara is mixed," or "I think my evaluation of Sara could resist an attack.").

In Chapter 3, Wagner, Briñol, and Petty review multiple dimensions of metacognitive judgments, including perceptions of number, purpose, and validity of thoughts. They then discuss how these dimensions provide unique insight into whether, how, or when people will be persuaded. In this chapter, thoughts in response to persuasive proposals are the primary cognition and the perceptions of those thoughts in terms of these dimensions are the secondary cognitions. Furthermore, Wagner and colleagues introduce the possibility that people can think about their metacognitions in what it could be labeled as the third level of cognition, or meta-metacognition.

These two chapters reveal that metacognitive dimensions such as confidence are consequential. However, confidence judgments in the social domain seldom refer to the accuracy of judgments. That is, in social psychological research it is not common to use the objective criteria of accuracy as people's thoughts often relate to judgments or actions involving other people, groups, political views, preferences, and so forth. For example, it is difficult to determine whether one's confidence in an attitude toward a significant other or toward a brand is accurate in any objective sense. In relative contrast, David Dunning (Chapter 4) focuses on how people assess the quality of their judgments. In this chapter, metacognitive confidence typically refers to the estimation of how likely it is for an answer (e.g., a judgment or a decision) to be correct, and criteria for accuracy are typically available. Dunning reviews research indicating that people tend to have unrealistically high levels of metacognitive confidence in their judgments and describes many interesting factors that produce this overconfidence (for a rare example of underconfidence, see Koriat, Sheffer, & Ma'ayan, 2002).

Whereas Dunning ends with some important suggestions for debiasing judgments of confidence, Wegener, Silva, Petty, and Garcia-Marques (Chapter 5) discuss debiasing more generally. This chapter focuses on the desire to be accurate in one's attitudes and judgments, discussing the many metacognitive processes used to detect and correct for biases in judgment. In this chapter, people's attitudes and judgments are the primary cognition and people's perceptions of the extent to which those judgments are accurate or biased constitute the secondary cognition of interest. The operations in which people engage to deal with perceived biases (e.g., thought suppression, subtraction, correction, recomputation, adjustment, control, and so forth) are also metacognitive in nature, because they involve a secondary cognition operating on a primary cognition. An interesting feature of this chapter is the distinction between amount of thinking and level of thinking. That is, thoughts that produce a bias and thoughts that identify and correct for a perceived bias can vary in depth of thought. Thus, extent of elaboration is relevant at the primary level of cognition (e.g., biased elaboration based on low vs. high amounts of thinking) and also at the secondary level of cognition (e.g., relatively low vs. high thoughtful correction processes).

Self and Identity

The study of the self and identity is a major research area within social psychology, and it serves as an important bridge to other areas of psychology (e.g., clinical and developmental psychology). The self is inherently metacognitive in nature, as self-awareness necessitates awareness of one's own mental states (James, 1890/1950) and self-regulation involves monitoring and controlling one's thoughts, feelings, and behavior (Baumeister, 1998). The chapters in this section examine several important ways that metacognitive processes have provided insight into the self.

In Chapter 6, DeMarree and Rios Morrison discuss metacognitive concepts relating to the self-concept and self-evaluation. They begin by noting that some self-conceptions are more consequential and more stable than others (i.e., self-conceptions vary in strength), and they discuss metacognitive features of

self-conceptions (e.g., certainty, importance, clarity) that predict these outcomes. Further, people's lay theories about their self-conceptions and abilities also have consequences in predicting these outcomes and others (e.g., the structure of self-conceptions). In this chapter, a person's self-conceptions are the primary cognition, whereas perceptions of or beliefs about these self-conceptions are the secondary cognitions. One unique issue that DeMarree and Rios Morrison discuss is how a person's cultural context can affect metacognition. Finally, these authors discuss the role that metacognition plays in responding to threats to one's self-conceptions.

Although responding to self-threats is a form of self-regulation, people have a wide range of goals beyond simply keeping a positive and certain view of the self, and these goals often play a central role in individuals' psychological functioning. Achtziger, Martiny, Oettingen, and Gollwitzer (Chapter 7) discuss how metacognitive principles can be important for understanding a wide range of goal pursuits. They note that a person's metacognition is relevant in determining which goals to pursue and how to pursue these goals, and in monitoring the success of one's ongoing goal pursuit. These authors note that implementation intentions, a self-control strategy that seeks to bind a specific goal-relevant behavior to an appropriate context, are not only useful in dealing with temptations and external reality (e.g., "If I see a hostile player talking to me, I will look in another direction."), but also in dealing with people's own thoughts (e.g., "If I notice that I feel anger against another player, I will think about scoring instead of lashing out.").

Schryer and Ross (Chapter 8) examine people's perceptions of themselves across time. They focus on how people's lay theories, including theories of stability (e.g., "I'm the same person I've always been.") and change (e.g., "Going to college increased my intelligence.") can shape people's recollections of earlier mental states (e.g., "This led me to estimate lower intelligence in high school."). Sometimes people's lay theories are accurate and sometimes they are inaccurate (e.g., in terms of presence, direction, or magnitude of perceived change). Regardless of the extent to which they are grounded in reality, these lay theories are also used in predicting future mental states, which in turn has consequences for people's current behavior. Thus, this chapter provides an interesting contribution by extending the focus of metacognition from the thoughts people have about current (primary) thoughts to the thoughts they have about past and future (primary) thoughts.

The section on the self closes with a chapter by Son, Kornell, Finn, and Cantlon (Chapter 9). This comprehensive chapter examines how research on evolutionary and life-span development can lend insights into the origins and nature of metacognition. Among the issues discussed in this chapter are how (or whether) awareness of one's own mental states (i.e., metacognition) is related to one's knowledge about others' mental states, whether consciousness or language is necessary for metacognition, and whether nonhuman animals can engage in metacognition. The construct of metamemory, or knowledge about one's knowledge, provides the unifying theme of this chapter. Among other interesting features, Son and colleagues' contribution is unique because they combine research in social, cognitive, developmental, and animal psychology in addressing some of the fundamental questions about metacognition.

Experiential Metacognition

As noted, one of the earliest and most influential demonstrations that people's thoughts about their thoughts can be consequential came from research using the *ease of retrieval* paradigm (Schwarz et al., 1991). Schwarz and colleagues reasoned that people might consider the ease with which thoughts can be retrieved from memory and, in testing this idea, found that people viewed themselves as more assertive after retrieving few (easy to generate) rather than many (difficult to generate) examples of their past assertive behavior.

As nicely reviewed by Sanna and Lundberg (Chapter 10), numerous studies across many domains of judgment now document that the ease with which information is processed or retrieved from memory can trump the actual content of the information in determining social judgments. In this chapter, the thoughts that come to mind (e.g., memories of previous assertive behaviors) are the primary cognition and the inferences resulting from ease with which those thoughts come to mind are the secondary cognition under examination. This chapter describes a large number of paradigms by which ease and fluency can affect social judgment. Sanna and Lundberg note that although traditional interpretation of the classic ease of retrieval effect has relied on a heuristic approach (ease indicates that more congruent thoughts are available), more recent accounts argue that other mechanisms are also possible (e.g., ease indicates that the current thoughts are valid) under specific circumstances.

The metacognitive experience of ease is but one "feeling" that can affect a person's thought use. In Chapter 11, Huntsinger and Clore describe emerging research indicating that affective reactions can exert an impact on the extent to which people rely on their thoughts. For example, when people are happy (vs. sad), they tend to rely more on their accessible cognitions, regardless of the nature of those primary cognitions. In this inspirational chapter, a wide range of thoughts (e.g., stereotypes, attitudes) take the role of primary cognitions and affect signals whether these primary cognitions can be trusted or not (i.e., affect affects secondary cognition). According to Huntsinger and Clore, positive affect confers value to accessible primary cognitions, which regulate the extent to which people rely on those thoughts. In their formulation, positive affect serves as a "go signal" that encourages the use of mental content, whereas negative affect serves as a "stop signal" that discourages use of primary cognitions.

In the final chapter of this section, Briñol, Petty, and Wagner (Chapter 12) shift focus to subjective experiences provided by a person's physical body. In their chapter, they argue that bodily experiences, such as a person's posture, gestures, and movements, can influence the confidence a person has in his or her own thoughts. As with the other chapters in this section, any thoughts that people have (e.g., in response to a persuasive message, about themselves, or about others) are the primary cognition of interest; a person's confidence in these thoughts (resulting from the person's body) is the secondary cognition. Using the self-validation framework, which states that a person's thoughts are used to the extent that they are seen as valid, Briñol and colleagues explain how other variables, such as ease or emotions, can affect social judgment through a single psychological mechanism of metacognitive nature.

Interpersonal Metacognition

As described previously, there are many ways in which social metacognition is "social." The final section of this book includes examples where the primary cognitions are clearly social (e.g., about one's feelings for another person) and occur in a social context (e.g., a group, an influence situation). This section begins with Yzerbyt and Demoulin (Chapter 13) describing metacognition as it relates to stereotyping and prejudice. In the first part of the chapter, people's stereotypes are the primary cognition of interest, whereas judgments of the appropriateness, justifiability, or validity of those stereotypes are the secondary cognitions of interest. In addition to describing the consequences of these metacognitive appraisals, Yzerbyt and Demoulin discuss how naïve theories (e.g., about perceived entitativity or essentialism of an outgroup) influence individuals' confidence in their own stereotypic beliefs. The second part of the chapter focuses on metastereotypes, or social targets' thoughts about social perceivers' (i.e., *other* people's) stereotypic beliefs. Importantly, this section discusses some of the consequences of people's metastereotypes, which then involve people thinking about their own thoughts.

In Chapter 14, Jacquie Vorauer analyzes the social psychological literature in close relationships from a metacognitive perspective. In this chapter, thoughts about the self as a partner, thoughts about the other person as a partner, and thoughts about the self–other relationship (e.g., fears of rejection) are the content of primary cognitions. Accompanying these primary cognitions are secondary cognitions, such as perceptions about the extent to which these thoughts are apparent to one's partner (e.g., thought transparency) and shared by one's partner. Throughout this engaging chapter, Vorauer emphasizes the role of egocentric biases in close relationships. This bias refers to the extent to which people perceive their own thoughts to be relevant and use them in judging a partner's thoughts and feelings. This bias then affects communication between partners and, ultimately, relationship satisfaction and intimacy. Importantly, people in close relationships differ in their motivation and ability to detect and correct for egocentric biases, and these mental activities involve metacognitive processes.

People think about their thoughts not only with regard to their significant others, but also with respect to the groups and organizations to which they belong. In Chapter 15, Thompson and Cohen examine how team members think about the way their own group processes information. The idea that groups, like individual people, can think about their own thought processes is at the core of a variety of interesting phenomena, including transactive memory, shared mental models, distributed cognition, and knowledge sharing. For example, people think about the extent to which their thoughts (primary cognition) are similar to those of other group members (secondary cognition), which in turn affects people's willingness to share these thoughts with others.

This chapter offers a clear and complete description of these and other important aspects of thinking about thinking, focusing on whether and when metacognitive processes can help or hurt teams. For example, when brainstorming in groups, people generate ideas (primary cognition) that come to mind relatively easily.

People enjoy that feeling of ease (secondary cognition) and, in this particular context, will often think that if thoughts come to mind with ease then the group must be useful in stimulating ideas, even though this is not always necessarily the case. Another important topic discussed in this chapter has to do with the perceptions that a person has about his or her group identity (primary cognition) and the extent to which these perceptions are held with importance, commitment, superiority, deference, or happiness (secondary cognitions).

Taken together, the first three chapters of this section examine how people deal with thoughts that transcend the self (e.g., thoughts about self–other relationships) and how they judge (and perceive that others judge) those thoughts. The three chapters provide a stimulating description of how a variety of metacognitions can play a critical role in the final impact of those thoughts (e.g., whether people end up sharing those thoughts with others or not).

In the next chapter, Rucker and Tormala (Chapter 16) examine similar issues in the domain of consumer interactions. For example, these authors describe models of knowledge in consumer interaction, such as the persuasion knowledge model. According to this model, consumers have knowledge about the agent of persuasion, knowledge about the target of persuasion, and knowledge about the interaction between them, and they use all this knowledge to change or evaluate their strategy in the influence situation. Rucker and Tormala also describe research examining how people perceive the outcomes of social influence (i.e., resistance or change in the targeted attitudes), making further inferences about the resulting attitudes. These metacognitive perceptions can then strengthen or weaken a person's resultant attitudes (e.g., "I just resisted a strong argument, so I'm *sure* my opinion is correct."). In this case, both the process (i.e., observations about one's thought processes) and the outcome (i.e., shifts in attitude certainty) are metacognitive in nature.

In the final chapter in the volume, Wells (Chapter 17) examines social influence in the therapeutic context. What is unique about Wells's metacognitive model of psychological disorder is that the maladaptive thought patterns that lead to disorder do not always stem from primary cognitions (e.g., "I think everything is threatening."), but instead from secondary cognitions (e.g., lay theories about one's need to focus on negative thoughts). Because of the focus on secondary cognition as a key cause of suffering, Wells's metacognitive therapy directly targets these metacognitions. That is, the therapist focuses on changing secondary cognition.

According to this view, two people can have the same primary thought (e.g., "I am worthless") but have different reactions (secondary cognitions) to such a belief. As Wells nicely illustrates, one person might dismiss negative thoughts as being overly self-critical whereas another might spend days analyzing why he or she is a failure. In addition to describing systematically the role of metacognition in the etiology and maintenance of psychological problems, the chapter provides examples of protocols that can be useful in assessing the metacognitions underlying mental disorders, as well as illustrations of the interventions designed to change them. Among other techniques, Wells recommends shifting people from assessing their primary thoughts to assessing their metacognition and separating the self from the content of the thoughts.

CONCLUSION

The present volume offers an up-to-date description of the social psychological literature employing metacognitive concepts. In addition to the work described in this book, a number of emerging lines of research also lend support to the importance of considering metacognitive factors in social behavior. Among others, this includes work on metacognitive regulation as a reaction to stereotype threat (Johns & Schmader, 2010) and work on how mood changes as a function of thought motion and speed (Pronin & Jacobs, 2008). Rather than employing metacognitive concepts to understand new phenomena, emerging research on metacognition is reaping the benefits of advances in psychological measurement, including using implicit measures (e.g., Petty, Briñol, & DeMarree, 2007) and brain imaging techniques (e.g., Fleming et al., 2010). Thus, although there is a lot of exciting research that already establishes the merit of considering metacognition to understand human social behavior and thought, much more is to come.

We hope that the current volume serves as a comprehensive review to readers interested in social metacognition. Psychologists' understanding of a wide range of topics can be increased with a consideration of metacognitive processes. It is worth noting that, in many cases, the metacognitive *processes* are similar, despite differences in the specific research topic. For example, the metacognitive assessment that a thought or judgment can be trusted as a valid basis for action can be initiated by factors such as the (actual or perceived) informational basis of the mental content, the ease with which the mental content is processed, a person's mood and bodily state, and a number of motivational factors.

Further, these assessments that a thought can be trusted can be useful in understanding the impact of thoughts or judgments in a large range of contexts as illustrated by the chapters of this book. This is a critical point because, by appreciating and understanding findings on topics outside our own specializations, we can often gain insight into the topics that are most central to our own interests. The processes that fall under the umbrella of social metacognition offer a great deal of explanatory breadth and, as such, are amenable to this sort of application.

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Section I

Attitudes and Decision Making